

Claims

1. A method for the manufacture of an innerspring assembly, which method comprises the steps of

5 a) positioning a first string of pocketed coil springs in juxtaposition with a plurality of adhesive applicators disposed in mutually fixed relation on an axis parallel to a longitudinal axis of said first string,

b) applying adhesive from said adhesive applicators to said first string of pocketed coil springs, and

10 c) bringing said first string into adhesive contact with a second string of pocketed coil springs.

2. A method as claimed in Claim 1, wherein adhesive is applied from said plurality of adhesive applicators simultaneously or substantially simultaneously.

15 A method as claimed in Claim 1 or Claim 2, wherein the first string of pocketed coil springs is positioned by being fed longitudinally and then displaced transversely into juxtaposition with the adhesive applicators.

4. A method as claimed in any preceding claim, wherein following application of the adhesive to the first string, the first string is tipped into an upright position such that the surface of the first string to which adhesive has been applied is brought into contact with the surface of the second string.

20 5. A method as claimed in any preceding claim, wherein the second string has immediately beforehand been processed in the same manner as the first string.

6. A method as claimed in any preceding claim, wherein the movements of the first string are brought about by suitable mechanical means, using electric, hydraulic or pneumatic power.

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A method as claimed in any preceding claim, wherein the adhesive which is applied to the first string is a hot melt adhesive.

8. A method as claimed in any preceding claim, wherein adhesive is dispensed from the adhesive applicators with those applicators in fixed, stationary positions relative to the first string.

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9. A method as claimed in any one of Claims 1 to 7, wherein adhesive is dispensed from the adhesive applicators whilst movement of the applicators relative to the first string is taking place.

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10. A method as claimed in Claim 9, wherein the first string is stationary and the applicators are moved.

11. A method as claimed in Claim 9, wherein the applicators are fixed and the first string is displaced.

12. Apparatus for use in the manufacture of an innerspring assembly, which apparatus comprises a plurality of adhesive applicators, means for positioning a first string of pocketed coil springs in juxtaposition with said plurality of adhesive applicators, and means for bringing said first string into contact with a second string of pocketed coil springs, wherein said plurality of adhesive applicators are disposed in mutually fixed relation on an axis parallel to a longitudinal axis of said first string.

13. Apparatus as claimed in Claim 12, wherein the adhesive applicators are arranged in a line.

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14. Apparatus as claimed in Claim 12 or Claim 13, wherein each applicator has a downwardly directed outlet for adhesive.

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15. Apparatus as claimed in any one of Claims 12 to 14, wherein each applicator is provided with more than one outlet for adhesive.

16. Apparatus as claimed in any one of Claims 12 to 15, comprising a turning mechanism by which the first string is tipped into an upright position such that the surface of the first string to which adhesive has been applied is brought into contact with the surface of the second string.

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17. Apparatus as claimed in Claim 16, wherein the turning mechanism comprises a plate disposed parallel to the adhesive applicators.

18. Apparatus as claimed in Claim 17, wherein the plate has a width corresponding approximately to the width of the first string and pivots about its major edge which is remote from the adhesive applicators.

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19. Apparatus as claimed in any one of Claims 12 to 18, further comprising mechanical means for bringing about movement of the first string.

20. Apparatus as claimed in Claim 19, wherein the mechanical means operate under electric, hydraulic or pneumatic power.

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21. Apparatus as claimed in any one of Claims 12 to 20, further comprising sensors to monitor and control the movements of the first string.

22. An innerspring assembly manufactured by the method of any one of Claims 1 to 11.

23. An innerspring assembly as claimed in Claim 22, which is for use in a mattress.

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24. An innerspring assembly which comprises strings of pocketed coil springs, said

strings being joined by adhesive applied to abutting surfaces of the pockets of adjacent strings, wherein the quantity and/or distribution of adhesive applied to the pockets of adjoining strings is non-uniform.

25. An innerspring assembly as claimed in Claim 24, which comprises at least one portion in which adjacent strings are connected by relatively high quantities of adhesive applied to the pockets of those strings and at least one portion in which adjacent strings are connected by relatively low quantities of adhesive applied to the pockets of those strings.

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